

Summaries

UDC 519.644

Shamsiev E.A.
CUBATURE FORMULAE, INVARIANT WITH RESPECT TO
TRANSFORMATION GROUPS OF GOSSET POLYHEDRON

Cubature formulae for six-dimension, seven-dimension and eight-dimension sphere invariant with respect to transformation groups of Gosset polyhedron are built. The numbers of the formulae obtained are minimal and close to them.

UDC 519.865

Istigecheva H.V.
ESTIMATION OF HYPERBOLIC AND INVERSE GAUSSIAN
DISTRIBUTION PARAMETERS

Hyperbolic and inverse Gaussian distributions of generalized hyperbolic distribution class are considered to describe financial dynamic series. The algorithm of parameter estimation of this distribution is suggested by means of the method of maximum likelihood. Approximation of estimation algorithm was carried out by the examples of empirical financial dynamic series.

UDC 51-72:530.145

Galazhinskiy A.V., Lekhtenfeld O., Polovinkov K.V.
ON THE STRUCTURE OF CONFORMALLY INVARIANT
MODELS IN ONE-DIMENSIONAL SPACE

General structure of conformally invariant quantum mechanics in one-dimension space is studied. The behaviour of the system with respect to unitary transformation generated by conformal algebra is investigated. Unitary transformation is built by means of which any conformally invariant quantum mechanics in one dimension can be transformed into free system with non-locally realized complete conformal symmetry.

UDC 553.411.071:552.322

Kucherenko I.V.
BASITE DIKES OF GOLD DEPOSITS
(THE NORTH OF TRANSBAIKALIA)

The first results of research of the dikes of eruptive rocks of Bogodikansk deposit main composition (one of the objects of North Transbaikalia not described in the works) accompanied by gold veins are presented. By mineral and chemical composition the rocks are identified as medium alkali corniferous dolerites. In near-ore area the dikes are hydrothermally changed with the formation of zone metasomatic halos presenting beresite metasomatic formation by mineral-petrochemical characteristics. Some typical features defining the belonging of deposit to the complex of mesothermal ones formed as many other gold deposits of North Transbaikalia as a result of functioning of ore-produced fluid-magmatic complexes at the latest stage accompanied by medium alkali basite magmatism are discussed.

UDC 552.578.2:553.982 (571.16)

Ezhova A.V.
METHODS OF ESTIMATION OF OIL SATURATION
OF LOW-OHM COLLECTORS IN JURASSIC DEPOSITIONS
OF SOUTH-EAST OF WESTERN SIBERIAN PLATFORM

Authigenic sulfide mineralization in hydrocarbon-saturated reservoirs distorts the electrical and density properties of rocks. The correlation between volumetric density, electro-conductive minerals and open porosity in 277 samples was determined. This fact made it possible to develop a nomograph in evaluating oil saturated reservoirs and can be applied in well geophysical survey data interpretation.

UDC 543.311;57.014

Serikov L.V., Shiyan L.N., Tropina H.A.,
Vidaykina N.V., Frimmel F.K., Metreveli G., Delai M.
COLLOID SYSTEMS OF UNDERGROUND WATER
IN WESTERN SIBERIAN REGION

It is shown that in the underground water of Western Siberia region the formation of colloidal systems is explained by interaction of $\text{Fe}(\text{OH})_3$ with dissolved organic substances. The constants of oxidation rate of Fe^{2+} by oxygen and ozone in water of hydrocarbonate type and in that with dissolved organic substances of humic origin are experimentally stated. The sizes of colloidal particles are defined. The value of pH resulting in destruction of colloidal system is found out.

UDC 550.42:577.4(571.1)

Lokhanova Yu.Yu., Rasskazov N.M.
GEOCHEMISTRY OF UNDERGROUND WATER
OF THE KATUN RIVER BASIN IN ITS AVERAGE FLOW

Distribution characteristic of underground water of in chemical composition of the Katun basin (Mountainous Altai) is presented, the estimation of their Ca, Fe and Mg ion saturation degree with respect to minerals of those elements is given. Geochemical water types are revealed. The main forms of chemical element migration: Na^+ , Mg^{2+} , Ca^{2+} , Mn^{2+} , Fe^{2+} , Pb^{2+} , Cu^{2+} , Zn^{2+} are described.

UDC 550:361:553.982

Polishchuk Yu.M., Yashchenko I.G.
THE ANALYSIS OF INTERRELATION OF CHEMICAL
COMPOSITION AND OIL DENSITY WITH GEOTHERMAL
CHARACTERISTICS OF OIL-BEARING TERRITORIES

The analysis of interrelation of oils chemical composition and density with heat flux level in oil-bearing territories using maps of geothermal and oil-gas bearing zoning of territory and a global database on physical and chemical characteristics of oils is carried out. It is found that the oil density and the contents of sulfur, resins and asphaltenes decreases in both global scale and in territories of Russia with increase in heat flux level and the contents of paraffins increases with increase in heat flux level. It is shown that in petroliferous territories of Russia with a high level of a thermal stream Cenozoic and Mesozoic oils and in areas with a low level - Paleozoic and Proterozoic ones basically settle down.

UDC 004.942

Barashkin R.L., Samarin I.V.
SIMULATING MODES OF GAS-LIFT WELL OPERATION

A detailed computer simulation of well operation modes at periodic and continuous techniques of gas-lift operation allowing solution of problems on engineering decision choice at the stage of project development of deposit as well as the problems of numerical analysis of operation modes of field gas-liquid lift at its operation is presented.

UDC 621.385

Vintzenko I.I.
PULSE-PERIODICAL RELATIVISTIC MAGNETRON
SHF GENERATORS

The results of theoretical and experimental research of relativistic magnetron SHF generators are presented. The influence of relativistic effect and high-frequency current on the output characteristics of devices is shown, the choice of power supply parameters of SHF generators is justified, and the results of device investigation on pulse-periodical mode are given.

UDC 621.039.51

**Arteln Yu.A., Gavrilov P.M., Shamanin I.V., Nesterov V.N.
THE IMPACT OF CONSTRUCTIVE CHARACTERISTICS OF
HEAT GENERATED ELEMENT ON THE BASIS OF ENRICHED
URANIUM ON LOCAL NEUTRON-PHYSICAL PROPERTIES**

Changes of local neutron-physical parameters in core of uranium-graphite reactors resulted from loading by heat generated elements of different design on the basis of enriched uranium are shown. The recommendation allowing decrease the effect of dehydration at keeping reactivity margin is formulated.

UDC 77.021.11:541.14

**Zvidentsova N.S., Shvaiko I.L., Sozinov S.A.,
Morozova T.V., Gerasimchyk N.V., Kolesnikov L.V.
AFFECT OF MICROCRYSTAL SIZES OF AgBr (111)
ON THE PROCESS OF PHOTSENSITIVITY FORMATION
IN THE MATERIALS BASED ON THEM**

New experimental results in photosensitivity change (S) of emulsion on the basis of octahedral microcrystals of AgBr (111) depending on average equivalent sizes (d) are discussed. It is shown that the observed maximum can be a consequence of length of diffused photoelectron shift L compared with magnitude d depending on $S=f(d)$ at $d=1$ mkm, as well as with less time of photoelectron end captured in trap in the reaction with interstitial ion with respect to its life time on the defect before thermal excitation into conductance area.

UDC 537.9

**Lipnitskiy A.G., Lopatina O.V., Chernov I.P.
ENERGY AND VOLUME OF HYDROGEN SOLUTION
IN FCC ALUMINIUM LATTICE**

Principle calculations of interaction characteristics of hydrogen with aluminium were made. The influence of atomic structure reconstruction on energy and volume of hydrogen solution in metal was investigated. In terms of model of chemical bond in metals the affect of hydrogen on the change of electron density in aluminium was studied and mechanism of appearance of excess volume introduced by hydrogen into metal was analysed.

UDC 539.238

**Kuznetsova S.A., Kozik V.V.
COLOURED COVERING ON THE BASIS OF COMPLEX
COMPOUND OF ZIRCONIUM FLUORESCINATE (IV)**

Physico-chemical investigation of formation processes in film-forming solution on the basis of complex compound of zirconium fluoresceinate (IV) was carried out. The possibility of using these compounds to obtain coloured films is shown. Optimal conditions of surface synthesis from bright-yellow to red colours are stated.

UDC 541.64

**Bortnikov A.Yu., Minakova N.N.
TEXTURE-FRACTAL ANALYSIS OF MICROSCOPIC SECTION
OF COMPOSITES FILLED WITH COMMERCIAL CARBON**

The results of examination of composite material macrostructure filled with commercial carbon by their photomicrography by means of texture and fractal analysis are presented.

UDC 66.081.3

**Kobzar N.Yu., Makaseev A.Yu., Khohlov V.A.
STUDY OF ISOTHERMS OF HYDROGEN FLUORIDE
ADSORPTION ON GRANULAR LITHIUM FLUORIDE**

The results of experimental study of adsorption process of hydrogen fluoride on granular lithium fluoride at pressure HF 1,33...33,25 kPa and temperature 293, 303, 313 K are presented. The composition of LiF-nHF complex, maximum capacity of LiF and equations of adsorption isotherms for given conditions is defined.

UDC 543.544-414.2

**Bilalov R.M., Kobzar N.Yu., Makaseev A.Yu., Khohlov V.A.
PELLETIZED SORBENTS ON THE BASIS OF LITHIUM FLUORIDE**

Principle circuit of full-scale plant and results of studying technologies of producing pelletized sorbents on the basis of lithium fluoride is presented. The results of investigation of sorbent specific surface dependence, maximum destroying loading on sorbent tablet, that of relative porosity on the condition of production: pressing, damping batch and content of steam-generator in the initial batch are shown.

UDC 541.138.2

**Antipenko I.S., Kosintsev V.I., Ivanov Yu.A., Nazarov B.F.
SIMULATING ELECTRODE PROCESSES AT SIMPLE
ELECTROCHEMICAL REACTION AND LINEAR CHANGE
OF POTENTIAL ON THE ELECTRODES OF LIMITED VOLUME**

The possibility of calculation of volt-ampere curves in reversed electrode process on flat electrodes for any values of H and γ_0 parameters without demensions characterasing the nature of electrode process, electrode parameters, form and velocity of potential change within the time compared with real time of making experiment is shown. The magnitude H shows the affect of relationship of electrochemical reaction rate defined by velocity of potential change, diffusion conditioned by interaction between molecules in the solutions (metallic, liquid) and a square of film thickness of electrode (anode process) or electrolyte (cathode process). The magnitude γ_0 shows the influence of relationship of electrochemical reaction rates depending on equilibrium potential.

UDC 543.253

**Golts L.G., Kolpakova N.A.
SORPTION REDUCTION AND DETERMINATION
BY THE METHOD OF INVERSE VOLTAMPEROMETRY
OF PERRHENATE-IONS IN MINERAL**

The conditions of sorption reduction of ReO_4^- on the surface of activated coal are investigated, sorption isotherm is described. The method of determination of rhenium in mineral raw materials by inversed voltamperometry technique is proposed.

UDC 543:253:546.94

**Sechina A.A., Kolpakova N.A.
DETERMINATION OF OSMIUM CONTENT IN ORES
BY THE METHODS OF VOLTAMPEROMETRY
AND INVERSE VOLTAMPEROMETRY**

Methods of voltamperometry and inverse voltamperometry for determination of osmium content in sulphate samples of copper-nickel ore and copper and nickel concentrates due to addition to base electrolyte of hydrogen peroxide are improved. Mechanism of electroreduction processes of osmium tetra oxide and electrical oxidation forming precipitates of metallic osmium and osmium dioxide at electrode is considered. The nature of "reverse" peak at inverse voltamperometry of osmium tetraoxide is explained. It is stated that optimal base electrolyte for the analysis of osmium content is 0,001 M sulphuric acid containing 0,4 mol/l of hydrogen peroxide. Meteorological characteristics of voltamperometry methods and inverse voltamperometry are calculated. Application of the methods is tested on standard samples.

UDC 541.64:532.135

**Manzhay V.N., Klimova N.L.
NEW OPPORTUNITIES OF TURBO-RHEOMETRIC INVESTIGATION
METHOD OF POLYMER DILUTED SOLUTIONS**

The sample solutions of polyhexene and polyacrylamide were examined by the turbo-rheometric and viscosimetric methods as well as by the method of gel-permeation chromatography. Volumes of macromolecular balls with immobilized solvent and their molecular mass were calculated. Practical coincidence of measuring results carried

ed out by different methods allows application of turbo-rheometry to define the coefficients of Mark-Kuhn-Hauwink equation, length of polymer chain segments and relationship of growth kinetic constants and chain interruption of polymerization process.

UDC 66.011

**Ivashkina H.N., Kravtsov A.V., Ivanchina E.D.,
Filintseva H.P., Yuriev E.M.
CONTROL OF COKING PROCESSES OF Pt-CATALYST
AT DEHYDROGENATION OF N-PARAFFINS C₁₀-C₁₃
IN PRODUCTION OF SYNTHETIC DETERGENTS**

The ways of controlling coke-formation in the process of n-paraffins C₁₀-C₁₃ using non-stationary kinetic model have been proposed. It is shown that one can provide maximum yield of the product at minimum coke-formation on the surface of Pt-catalyst varying process technological parameters on the model (temperature, material consumption, and circulating factor of hydrogen-containing gas).

UDC 541.537.523:66.011

**Kudriashov S.V., Ryabov A.Yu., Shchegoleva G.S.,
Sirotkina E.E., Suslov A.I.
OXIDATION OF n-C₅-C₈ HYDROCARBONS
AND CYCLOHEXANE IN A BARRIER DISCHARGE REACTOR.
Part 1. Experimental investigation results**

The oxidation of n-pentane, n-hexane, octane and cyclohexane and their mixtures in a barrier discharge reactor has been studied. Under the conditions of an efficient removal of the reaction products from the discharge zone a high selectivity of oxidation processes is reached. The oxidation results in the formation of alcohols, aldehydes and ketones possessing the same atom numbers as the initial hydrocarbons. The main products of cyclohexane oxidation are represented by cyclohexanol (52,12 wt %) and cyclohexanon (47,88 wt %). The oxidation of model mixtures of hydrocarbons leads to the formation of the same products that from the individual hydrocarbons. It has been shown that the atomic oxygen reacts first of all with the hydrocarbon molecules in the gas phase, and as they are consumed, the hydrocarbon molecules at the gas-liquid boundary come into the reaction.

UDC 771.534.21:547.832.1

**Kobotayeva N.S., Mikubayeva H.V.,
Skorokhodova T.S., Sirotkina E.E.
THE STUDY OF SPECTRAL-LUMINESCENT PROPERTIES OF
γ-PYRILOCYANINE AND THEIR HETEROANALOGUES**

Spectral-luminescent properties of γ-pyrilocyanines and their heteroanalogues with modified complex anions have been studied. It is shown that there is a decrease of quantum fluorescent yields along with pyrilo-, thiapyrilo-, selenpyrilo- for mono- and trimethinecyanines and at replacement of anion dye molecule ClO₄⁻ into anion TlCl₄⁻ as a result of increasing the probability of singlet-triplet transition under the influence of heavy atoms.

UDC 547.632.5:543.422.25

**Kobotayeva N.S., Ogorodnikov V.D.,
Mikubayeva H.V., Sirotkina E.E.
INVESTIGATION OF INTERACTION POSSIBILITY
OF POLY-N-EPOXYPROPYLCARBAZOLE
WITH TRIPHENYLMETHANE DYES**

The interactions between triphenylmethane dyes and triple complex of triphenylmethane dye and poly-N-epoxypropylcarbazole have been investigated by means of NMR-spectroscopy method. It is shown that polymer organic semiconductor and dye interact in the ground state forming weak complexes with charge transfer.

UDC 541.122.4:66.048(661.715.3)

**Lyapkov A.A., Shefer Yu.V.
SIMULATION AND OPTIMIZATION OF SEPARATING
INSTALLATION OF COMMERCIAL PROPYLENE**

Simulation of continuous multicomponent rectification in the plate column and optimization of its operation parameters providing separation of commercial propylene of desired quality has been carried out. The main factors influencing the quality of commercial propylene are analysed. The conclusion is made on the necessity of either decreasing power supply or increasing the pressure in the column to achieve the desired quality of propylene without changing the construction of equipment. Having replaced the existing plates into more efficient ones (for example, of grid type) and changed column manifold to make two separate ones it is possible to improve the operation of installation.

UDC 536.46

**Myrzakulov R., Kozybakov M.Zh., Sabdenov K.O.
MODELLING ACOUSTIC INSTABILITY
IN ROCKET CHAMBER OF SOLID FUEL**

The appearance, development, and consequences of acoustic instability in rocket chamber with solid fuel have been studied. Relatively low-frequency oscillations with the period of much more than that of proper oscillations of the chamber are considered. But the frequency of thermodynamic parameters change is in the wide range and can be compared with proper frequency of burning zone. Instability can result in auto-oscillatory burning, or to chaotic conditions, or to burning failure.

UDC 621.181.001.4:621.18

**Lyubimova L.L., Tashlykov A.A., Makeev A.A.,
Zavorin A.S., Artamontsev A.I., Lebedev B.V.
CHANGE OF INTERNAL STRESS IN THE SECTIONS
OF BOILER TUBING AT PLASTIC DEFORMATION**

The results of redistribution of internal residual stress in the wall of boiler tubes of perspective energetic steel ДИ-59 of austenite type under the action of external cyclic mechanic deformation are presented and the dependence of structure microdamageability due to crack-formation on cycling loading is stated.

UDC 536.46+621.9

**Kryukova O.N.
NUMERICAL INVESTIGATION OF COVERING DRIP MELT
MODEL WITH MODIFICATING PARTICLES IN TERMS
OF PHYSICO-CHEMICAL TRANSFORMATIONS**

The model of drip melt process of covering with modifying particles in terms of physico-chemical transformations is proposed. The process of solution is described on the basis of formal-kinetic approach; melting and crystallization processes are considered in the course of two-phase zone theory. The result of numerical problem solution is phase and chemical composition of the forming cover, zone dimension of thermal impact and melting bath depending on the parameters characterising melting mode.

UDC 621.923.01

**Levko V.A.
ABRASIVE-EXTRUSION TREATMENT:
CONTEMPORARY ACHIEVEMENTS,
PROBLEMS AND TRENDS OF DEVELOPMENT**

The review of contemporary achievements of abrasive-extrusive treatment is presented. It is shown that the absence of theoretical bases is the main problem appearing at putting this finite treatment technique into operation.

UDC 539.3

Barashkov V.N.
ANALYSIS OF STRESS-DEFORMATION
OF MASTER ASSEMBLING DEVICE SECTOR WITH INSERTS

By means of the developed numerical method the ways of decreasing parameter values of spatial three-dimension stress-deforming state of assembling master device in the area of device sector joints and a hurred bar. An approach based on reinforcing this most loading part of the sectors by means of inserts made from durable material is realised. The results obtained permit to pose and consider the question on some similarity of rational design of sector insert geometry of assembling master device. The problem of elastoplastic deformation is solved by means of variational-difference method. Physical relations are considered in terms of small elastoplastic deformation theory. Geometric relations are taken in the form of Cauchy's equation. Physically non-linear problem is solved by the method of variable elasticity parameters.

UDC 539.3

Zamyatin V.M., Makhov A.V., Svetashkov A.A.
PLANE PROBLEM SOLUTION OF ELASTISITY THEORY
FOR THE STRIP BY MEANS OF DIAGONALIZED SYSTEM
OF EQUILIBRIUM EQUATION

Setting and scheme of realization of the new method of solving plane problems in terms of elasticity theory, based on diagonalization of equilibrium set of equation is given. Analytical solutions of the three plane problems in stresses for loading bar by complex load.

UDC 622.232.72

Saruyev L.A., Shadrina A.V.
INVESTIGATION OF ELASTIC WAVE TRANSMISSION
IN THE STRING OF DRILL ROD AT PERCUSSIVE-ROTARY
DRILLING IN LABORATORY CONDITIONS

The analysis of results of energy transfer impact momentum at the stings of drill rod of the nipple and ring joints in laboratory conditions has been carried out. Relative change of amplitude, durability, and energy of impact momentum at its distribution over drilling instrument is stated.

UDC 621.923

Kalbiyev R.K.
TWISTING OF PRISMATIC CANT, LINEARLY WEAKENED
BY CYLINDER CAVITIES WITH REGARD
TO SURFACE ROUGHNESS

Twisting of prismatic cant of double-connected cross-section limited by a square from the outside or by a contour close to circles on the inside has been studied. When twisting prismatic cant linearly weakened by cylinder cavities over the circle, inside the external contour of prism section (square) as well as when twisting circular cant of equal diameter, the stress tangent are equal. In this case geometrical parameters of the internal contour more sufficiently influences the cant stress state than the external ones.

UDC 519.71:622.3

Sergeev V.L., Sevostyanov D.V.
INTEGRATED MODELS AND ALGORITHMS OF IDENTIFICATION
OF WELL PRODUCTION OF OIL DEPOSITS

The problem of identification of oil deposit well production is considered in terms of additional information on production (injection capacity) of the offset wells, supplementary prior information and expert judgement on model parameters of liquid influx presented by nonparametric models. The results of statistic modelling in determination of accuracy of the suggested estimations of well production and seam pressure are presented.

UDC 621.311:519.8

Manusov V.Z., Biriukov E.V.
SHORT-TERM LOAD PREDICTION ON THE BASIS OF FUZZY
NEURAL NETWORK AND ITS COMPARISON WITH OTHER
METHODS

The comparison of both suggested before and newly developed methods of short-term load prediction has been carried out: regression analysis, neural networks, and fuzzy neural networks. Comparison of the given approaches is based on the solution of a problem of daily load prediction. The main purpose of the comparative analysis of the prediction methods is to reveal the most optimal approach to load prediction from the point of view of both accuracy and efficiency at incomplete input information.

UDC 681.3.06

Sonkin M.A., Slyadnikov E.E., Rusanovskiy S.A.
INFORMATION TECHNOLOGY OF MULTILEVEL SYSTEM
COMPONENT INTEGRATION WITH BURST TRANSFER

A new information technology of component integration of the multi-level systems with burst transfer has been proposed. Sufficient properties of this integration are analysed from the point of view of practical application of documentary communication system. On the one hand, the character of data communication of task-level message batch, features of communication network topology as well as functional orientation of hardware and software complexes is presented. On the other hand, the interaction of separate structural components of integrated information-telecommunication systems with batch communication is shown. The standard of information-technological interface of offline measuring complexes with up-to-date data collection and transmission networks, software of technology components are developed and conformed.

UDC 791.44.025;004.021

Khudeev R.P.
VIDEO RESTORATION METHOD
AFTER DIGITATION OF OLD CINEFILMS

The method of video film restoration obtained by digitations of defective cinefilms is described. The algorithm of automatic finding and restoration of defective regions in the picture is proposed. The technique of identification and restoration of defective pictures is presented.

UDC 336.011

Yevdokimov P.O.
STUDYING THE NOTION OF ACCOUNTS RECEIVABLE
OF MANAGEMENT SUBJECT

Analysis has been carried out as well as interpretations of accounts receivable notion have been classified. The author's complementary approach qualifying the definition of the given notion is proposed.

UDC 658.114.4

Kniga A.S.
THE ROLE OF DIRECTOR BOARD
IN CORPORATE MANAGEMENT

The role of board of directors in the contemporary corporate management has been considered, the peculiarities of the board functioning in Russian companies are revealed.

UDC 338.48(075.8)

Donskova L.I.
SERVICE SECTOR: ESSENCE, LEVEL
OF DEVELOPMENT, PROBLEMS

The role and significance of service sector for people's activity is shown, the indicators of its development in the industrially developed

countries as well as the level of development and the problems of this sector in Russia are presented.

UDC 330.01

Ananyev V.A.
MOTION OF RUSSIA TOWARDS
INFORMATION-ORIENTED SOCIETY

Prerequisites of formation of information society in the Russian Federation have been considered. The main criteria of development of information society are analysed in the course of economic sociodynamics concept. The basic problems, the solution of which will accelerate the creation of information society in Russia are formulated.

UDC 371

Kamyshev E.N., Arutchyan M.M., Bleikher O.V.
THE POTENTIAL OF COMPLEMENTARITY PRINCIPLE IN THE
EDUCATIONAL PRACTICE OF POST-INDUSTRIAL SOCIETY

Analysis of sociocultural conditions in the post-industrial society determines the necessity of searching for new methods and models of human and sociocultural development. One of the possible mechanisms of creating such methods and models is a change of paradigms and techniques of education in terms of development of innovation educational processes. In this connection, the search for management principles of innovation educational processes becomes urgent. As a methodological management principle of innovation processes in education N. Bohr's complementary principle has been chosen.

UDC 371.4

Petrova G.I., Khatkevich S.P.
PRIVATE EDUCATION IN EDUCATIONAL MARKET:
PHILOSOPHY-ECONOMICAL ANALYSIS OF THE PROBLEM

The main trends of modern philosophy of business thinking in education formed under the conditions of private educational institutions have been considered. The question of possibility of charged educational service as that replacing the gift of education in the course of state standard is discussed.

UDC 371

Antropyanskaya L.N.
ON THE QUALITY OF TRAINING SPECIALISTS
IN TECHNICAL HIGHER SCHOOL

The quality of contemporary education in technical higher school is analyzed. The new approaches to teaching process are proposed. The important part in them is played by culture-forming function of a teacher in the process of training contemporary students.

UDC 378.14

Zhuravleva I.V., Igonina T.B., Borodina I.N.
ON THE QUESTION OF CIVIL EDUCATION OF THE YOUTH
WITH ASOCIAL BEHAVIOR IN THE CONDITIONS
OF AUTHORITATIVE RELATIONS OF TRANSITION TIME

The questions of citizen education of the youth in the contemporary conditions of society have been considered. The performed analysis of psychological-pedagogical works allows the determination of integration directions of education institution activity with the other social institutions and coordination of joint action in citizenship formation of the youth. The accumulated experience of joint action of educational institution and the committee of minor offenders is of great interest.

UDC 9(C18)

Eremín I.A.
THE CARE FOR SICK AND WOUNDED SOLDIERS IN WEST
SIBERIA DURING WORLD WAR I (1914–1918)

Large losses of the Russian Army during World War I made the government use widely social initiative and the resources of rear provinces to support wounded and sick soldiers. Alongside with the growth of beds in military hospitals new patient care institutions opened in West Siberia to help wounded soldiers. Siberian medical – nourishing detachments organized on the initiative of public organizations worked very effectively at the front. Local rule and public organizations of the region paid great attention to the employment of invalids.

UDC 930.1(44)

Trubnikova N.V.
REVISION OF THE HERITAGE OF POSITIVISM IN THE CON-
TEMPORARY FRENCH HISTORIOGRAPHY RESEARCHES

The article is devoted to one of actual discussions of a contemporary French historiography – to reassessment of historical positivism tradition. In these discussions "the methodical school", scarified by the movement of "Annales" in the XX century, "will be rehabilitated" as a foundress of the French historical science.

UDC 821-31:821.161.1-31

Matveenko I.A.
GENESIS AND GENRE PECULIARITIES OF THE NEWGATE
NOVEL (problem statement of Newgate novel reception
in the Russian literature of the XIX cent.)

The genre peculiarities of Newgate novel as well as the reasons of its appearance in Great Britain are revealed. This information will help to comprehend the interest in the genre shown in Russia in the second half of the XIX century. Restoration of the picture of the Newgate genre reception will assist to make precise the characteristics of the given genre modification in the process of its functioning in the English literature and, consequently, the interaction with other genres both in English and in Russian literature.

UDC 378.14:371.261:159.947.5

Permyakov O.E., Zhdan V.A., Menkova S.V.
INFLUENCE OF POINT- RATING SYSTEM
ON THE MOTIVATION OF STUDENTS' EDUCATIONAL-COG-
NITIVE ACTIVITY AND TEACHERS' WORK

The main purposes and variants of organizing point-rating estimation system of students' educational achievements are presented; their advantages and disadvantages are considered. The factors influencing students' and teachers' motivation are determined. The role of target setting in the organization of point-rating estimation system and in motivation of students' educational-cognitive activity and teachers' work is considered.

UDC 378.662 (571.16)

Permyakov O.E.
MONITORING OF VOCATIONAL EDUCATION QUALITY
FROM CYBERNETICS' AND SYSTEM ANALYSIS POINT
OF VIEW

Regularities, principles and properties peculiar to institutional systems of vocational education are presented. By the example of information processes of higher school management and in the course of providing guarantees of vocational education the problems and tasks of monitoring of vocational education quality are considered.

UDC 159.9

Beresteneva O.G., Dubinina I.A.
**TECHNOLOGY OF ESTIMATION OF CONVERGENT
AND DIVERGENT ABILITIES AS FACTORS OF STUDENTS'
INTELLECTUAL COMPETENCE**

The problem of successful intellectual self-realization of engineering students is considered. The results of experimental research and data on characteristics of students' convergent and divergent abilities enabling the formation of intellectual competence are presented.

UDC 531/534+530.1(076)

Pisarenko S.B., Larionov V.V.
**CONCEPTION MODEL IN THE PHYSICAL PRACTICAL
TRAINING SYSTEM OF TECHNICAL UNIVERSITIES**

The concept of modern pedagogical technology of teaching physics in the system of physical practical training realised in TPU has been presented. Program-methodical complex developed on the basis of the concept includes composite laboratory works, testing video system containing control unit, access program, data base, electron register. As the experience implies, the technology proposed provides a high level of physics education under the condition of room-study hours reduction for teaching of physics in engineering university.

UDC 531/534+530.1(076)

Pisarenko S.B., Larionov V.V.
**CONCEPTION MODEL IN THE PHYSICAL PRACTICAL
TRAINING SYSTEM OF TECHNICAL UNIVERSITIES**

It is shown that methodology laboratory-project works at technical university as a method of training to physics are expedient for car-

rying out in the environment of a composite physical practical training which includes the interconnected combination of virtual, computing and natural experiment, as well as visual system. Examples of performance of concrete laboratory-project works in Tomsk polytechnic university are shown.

UDC 929

Dyachenko A.N.
ATOMIC EPOCH OF SIBERIA

Biographical material and Professor N.P. Kurin's biography is presented. His role in formation and development of atomic industry in Siberia is shown. By his disciples', colleagues' and relatives' recollection some historical episodes from the life of Tomsk Polytechnic University are restored.

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Stas N.F.
TWICE SOROS' LECTURER VALENTIN MIKHAILOVICH IKRIN

The article is devoted to Valentin Mikhailovich Ikrin (1944-2006), who was a dean of Chemical-Technological Department, a lecturer and a tutor of the students of Natural Sciences and Mathematics Department, Chemical-Technological Department and Physical-Engineering Department, Institute of International Education and of Chemical Lyceum, a man of business and warm heartedness.